



**Technical Certificate
in
Diesel Service Technology**

Required Technical Courses 26 Credit Hours

DST 1003	Workplace Safety
DST 1003	Hydraulics, Air Systems, and Cables
DST 1104	Diesel Engines
DST 1302	Electrical/Electronic Systems
DST 1502	Diesel Fuel Systems
DST 2103	Power Trains
DST 2303	HVAC Service and Diagnostics
DST 2503	Brake Systems
DST 2703	Chassis and Steering

General Education 6 Credit Hours

ENGL 1133	Business and Technical English
MATH 1103	Math with Business Applications

TOTAL 32 Credit Hours

New Courses

DST 1003 Workplace Safety

This course covers information that the technician will have to know to create and maintain a safe working environment. The student will also be exposed to the various legal aspects of the workplace.

DST 1003 Hydraulics, Air Systems, and Cables

This course is designed to teach the student the various hydraulic and air systems and cables associated with the maintenance of heavy, diesel vehicles. Lecture and Lab

DST 1104 Diesel Engines

This course provides a study of basic diesel engine design and operation to include overviews of injection systems, removal and replacement of engine parts, engine timing and troubleshooting.

DST 1302 Electrical/Electronic Systems

This course covers basic electrical theory including both series and parallel circuits, and proper troubleshooting techniques to be used when isolating a vehicle's electrical problem. The use of various measuring equipment is covered, as well as how to troubleshoot key electrical circuits such as charging and starting systems. In addition, the student will also learn to use electrical schematics and drawings to analyze circuits. Lecture and Lab

DST 1502 Diesel Fuel Systems

This course provides a study of fuel injection systems (pressured type and distributor type) and maintenance principles consisting of removing and replacing of pumps and injectors, timing, and troubleshooting. Lecture and Lab

DST 2103 Power Trains

This course is an introduction to common heavy duty transmissions, mechanical transmission and differentials. Lecture and Lab

DST 2303 HVAC Service and Diagnostics

This course will provide students training in refrigerant recovery and recycling procedures, safety precautions, purging, flushing, evacuation, recharging and performance testing of air conditioning systems associated with diesel engines. This course also covers troubleshooting and diagnostic procedures for the various electronic controls systems that are used on various vehicles. Lecture and Lab

DST 2503 Brake Systems

This course provides students with theory and lab on brake systems and components associated with diesel vehicles. The student will learn how a normal brake and anti-lock system is designed to operate, how to troubleshoot, and repair. Lecture and Lab

DST 2703 Chassis and Steering

This course covers contemporary heavy truck frame design, including attachment methods, spring, and air ride suspensions. Manual and power steering gears and hydraulic steering pumps are also covered. Lecture and Lab

Proposed Semester Outline

Fall Semester

DST 1003 Workplace Safety

DST 1003 Hydraulics, Air Systems, and Cables

DST 1104 Diesel Engines

DST 1302 Electrical/Electronic Systems

Spring Semester

DST 1502 Diesel Fuel Systems

DST 2103 Power Trains

DST 2303 HVAC Service and Diagnostics

DST 2503 Brake Systems

DST 2703 Chassis and Steering

Summer Semester

ENGL 1133 Business and Technical English

MATH 1103 Math with Business Applications

Program Learning Outcomes

Demonstrate proper safety procedures that will protect him/her, the employer, and the equipment on the job

Demonstrate knowledge of how a diesel engine and all associated equipment works

Demonstrate knowledge through practical application of how to maintain diesel engines, equipment, and associated vehicles

Troubleshoot and repair diesel engines, and associated equipment and vehicles

Describe the importance of employee-employer, employee-employee, and employee-customer relationships

Demonstrate the Ozarka College general education outcomes